

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at the bottom of page 22 and continuing onto page 24 as follows:

-- FIG. 9 illustrates an apparatus for decoding a TFCI according to an embodiment of the present invention. Referring to FIG. 9, the decoder inserts '0' in the positions, punctured by the encoder, of a received signal corresponding to the TFCI symbol of length of 48, having a value of $+1/-1$, thereby to create a received signal $r(t)$ of length 64. The received signal $r(t)$ is provided to 7 multipliers 901-907 and a correlation calculator 920. The received signal $r(t)$ is a signal encoded by a predetermined Walsh code and a predetermined mask sequence in the encoder of the transmitter. A mask generator 910 creates possible mask functions M1-M7 which can be created by 3 base masks, and provides the generated mask functions to multipliers 901-907, respectively. The multiplier 901 multiplies the received signal $r(t)$ by the mask function M1 output from the mask generator 910, and provides its output to a correlation calculator 921. The multiplier 902 multiplies the received signal $r(t)$ by the mask function M2 output from the mask generator 910, and provides its output to a correlation calculator 922. The multiplier 907 multiplies the received signal $r(t)$ by the mask function M7 output from the mask generator 910, and provides its output to a correlation calculator 927. That is, the multipliers 901-907 multiply the received signal $r(t)$ by their associated mask functions M1-M7 from the mask generator 910, and provide their outputs to the associated correlation calculators 921-927, respectively. By doing so, the received signal $r(t)$ and the signals calculated by multiplying the received signal $r(t)$ by the possible 7 mask functions, i.e., a total of 8 signals are provided to the 8 correlation calculators 920-927 ~~920-907~~, respectively. If the transmitter has encoded the TFCI using a predetermined mask function, any one of the outputs from the multipliers 901-907 will be a mask function-removed signal. Then, the correlation calculators 920-927 calculate 128 correlation values by correlating the received signal $r(t)$ and the outputs of the multipliers 901-907 with 64 Walsh codes of length 64 and 64 inverted Walsh codes calculated by inverting the 64 Walsh codes, i.e., a total of 128 bi-Walsh (or biorthogonal) codes. The largest one of the calculated correlation values, an index of then-correlated Walsh code and an index of the correlation

calculator are provided to a correlation comparator 940. The 128 Walsh codes have already been defined above. The correlation calculator 920 calculates 128 correlation values by correlating the received signal $r(t)$ with 128 bi-Walsh codes of length 64. Further, the correlation calculator 920 provides the correlation comparator 940 with the largest one of the calculated correlation values, an index of then-calculated Walsh code and an index '0' of the correlation calculator 920. Here, the index of the correlation calculator is equivalent to an index of the mask function indicating which mask function is multiplied by the received signal for the signal input to the correlation calculator. However, the mask index '0' means that no mask is multiplied by the received signal. Further, the correlation calculator 921 also calculates 128 correlation values by correlating the received signal $r(t)$ multiplied by the mask function M1 by the multiplier 901 with 128 bi-Walsh codes of length 64. Further, the correlation calculator 921 provides the correlation comparator 940 with the largest one of the calculated correlation values, an index of then-calculated Walsh code and an index '1' of the correlation calculator 921. The correlation calculator 922 calculates 128 correlation values by correlating the received signal $r(t)$ multiplied by the mask function M2 by the multiplier 902 with 128 bi-Walsh codes of length 64. Further, the correlation calculator 922 provides the correlation comparator 940 with the largest one of the 128 calculated correlation values, an index of then-calculated Walsh code and an index '2' of the correlation calculator 922. The correlation calculator 927 calculates 128 correlation values by correlating the received signal $r(t)$ multiplied by the mask function M7 by the multiplier 907 with 128 bi-Walsh codes of length 64. Further, the correlation calculator 927 provides the correlation comparator 940 with the largest one of the calculated correlation values, an index of then-calculated Walsh code and an index '7' of the correlation calculator 927. --